

## **PROGRAMMABLE AMPLIFIERS WITH POSITIVE AND NEGATIVE HYSTERESIS**

### **ABSTRACT OF THE DISCLOSURE**

**[0083]** Programmable dynamic amplifiers with hysteresis are provided. The hysteretic amplifiers have a first input voltage threshold when the output voltage is at a high voltage and a second input voltage threshold when the output voltage is at a low voltage. A multiplexer controls the hysteretic threshold voltages in response to the output signal of the amplifier. The hysteretic amplifiers can be programmed to have positive or negative hysteresis. When the amplifier is programmed with positive hysteresis, the output voltage transitions after the input voltages have both reached a common voltage value. When the amplifier is programmed with negative hysteresis, the output voltage transitions before the input voltages have both reached a common voltage value.

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